



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

DEC 22 2015

Regulatory Branch

Mr. George Carlson
Washington State Department of Transportation
Post Office Box 330310
Mail Stop NB82-0138
Seattle, Washington 98133-9710

Reference: NWS-2015-249
WA St Dept of Transportation
(SR 542 High Creek)

Dear Mr. Carlson:

We have reviewed your application to replace the High Creek culvert on State Route 542 in High Creek near the community of Maple Falls, Whatcom County, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 13, Bank Stabilization and Nationwide Permit (NWP) 14, Linear Transportation Projects (Federal Register February 21, 2012, Vol. 77, No. 34), authorizes your proposal as depicted on the enclosed drawings dated December 2015.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 13, Terms and Conditions*, *NWP 14, Terms and Conditions*, and the following special conditions:

a. This U.S. Army Corps of Engineers (Corps) permit does not authorize you to take a threatened or endangered species, in particular the marbled murrelet and northern spotted owl. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or ESA Section 7 consultation Biological Opinion (BO) with non-discretionary "incidental take" provisions with which you must comply). The Review for Consistency with the Programmatic for Western Washington Regions of the WSDOT BO prepared by the U.S. Fish and Wildlife Service (USFWS) dated October 15, 2010, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the specified "incidental take" in the BO (USFWS Reference Numbers 01EWF00-2015-TA-0265 and 13410-2007-F-004). Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the BO. These terms and conditions are incorporated by reference in this permit. Failure to comply with the commitments made in this

document constitutes non-compliance with the ESA and your Corps permit. The USFWS is the appropriate authority to determine compliance with ESA.

b. In order to protect the listed threatened and endangered species in the project area, you may conduct the authorized activities in the work window as agreed to and documented in writing through consultation by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (Services) in any year this permit is valid. If changes to the originally authorized work window are proposed, you must re-coordinate these changes with the Services and receive written concurrence on the changes. Copies of the concurrence(s) must be sent to the U.S. Army Corps of Engineers, Regulatory Branch, within 10 days of the date of the revised concurrence.

c. You shall implement and abide by the restoration plan, *Final Aquatic Resources Assessment and Restoration Report—State Route 542/High Creek-Fish Passage Mileposts 24.63 to 25.13* dated November 2015.

The Federal Highway Administration completed National Historic Preservation Act, Section 7 Endangered Species Act (ESA) consultation, and Magnuson Stevens Act essential fish habitat consultation (EFH) for its involvement in the proposed activity [U.S. Fish and Wildlife Service reference [01EWF00-2015-TA-0265 and 13410-2007-F-004], [National Marine Fisheries Service reference [WCR-2015-2057] (collectively called the Services)]. For the purpose of this Department of the Army authorization, we have determined this project will comply with the requirements of these laws provided you comply with all of the permit general and special conditions. We have determined the permit action is sufficiently addressed in their ESA and EFH consultation documents. By this letter we are advising you and the Services, in accordance with 50 CFR 402.07 and 50 CFR 600.920(b), that this agency has served as the lead Federal agency for the ESA and EFH consultation responsibilities for the activity described above.

We are unable to determine whether or not your project requires individual Water Quality Certification (WQC) and/or a Coastal Zone Management (CZM) consistency determination response from the Washington State Department of Ecology (Ecology). Before you may proceed with the work authorized by this NWP, you must contact Ecology regarding these requirements at: Washington Department of Ecology, Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington 98504-7660; telephone: (360) 407-6068; or email: ecyrefedpermits@ecy.wa.gov.

If more than 180 days pass from when you provide Ecology a copy of this letter and request your individual WQC and CZM consistency determination concurrence review, your requirement to obtain an individual WQC and CZM consistency determination response becomes waived. You may then proceed to construction.

We have prepared and enclosed a *Preliminary Jurisdictional Determination* (JD) dated June 2, 2015, which is a written indication that wetlands and waterways within your project area

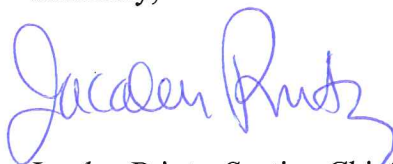
may be waters of the U.S. Such waters will be treated as jurisdictional waters of the U.S. for purposes of computation of impact area and compensatory mitigation requirements associated with your permit application. If you believe the Preliminary JD is inaccurate, you may request an Approved JD, which is an official determination regarding the presence or absence of waters of the United States. If one is requested, please be aware that we may require the submittal of additional information to complete an approved JD and work authorized in this letter may not occur until the approved JD has been finalized.

Our verification of this NWP authorization is valid until March 18, 2017, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date and you have commenced or are under contract to commence this activity before March 18, 2017, you will have until March 18, 2018, to complete the activity under the enclosed terms and conditions of this NWP. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act. You must also obtain all local, State, and other Federal permits that apply to this project.

You are cautioned that any change in project location or plans will require that you submit a copy of the revised plans to this office and obtain our approval before you begin work. Deviating from the approved plans could result in the assessment of criminal or civil penalties.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form. Thank you for your cooperation during the permitting process. If you have any questions, please contact Ms. Rebecca McAndrew at rebecca.e.mcandrew@usace.army.mil or (206) 764-6912.

Sincerely,



Jacalen Printz, Section Chief
Regulatory Branch

VICINITY MAP

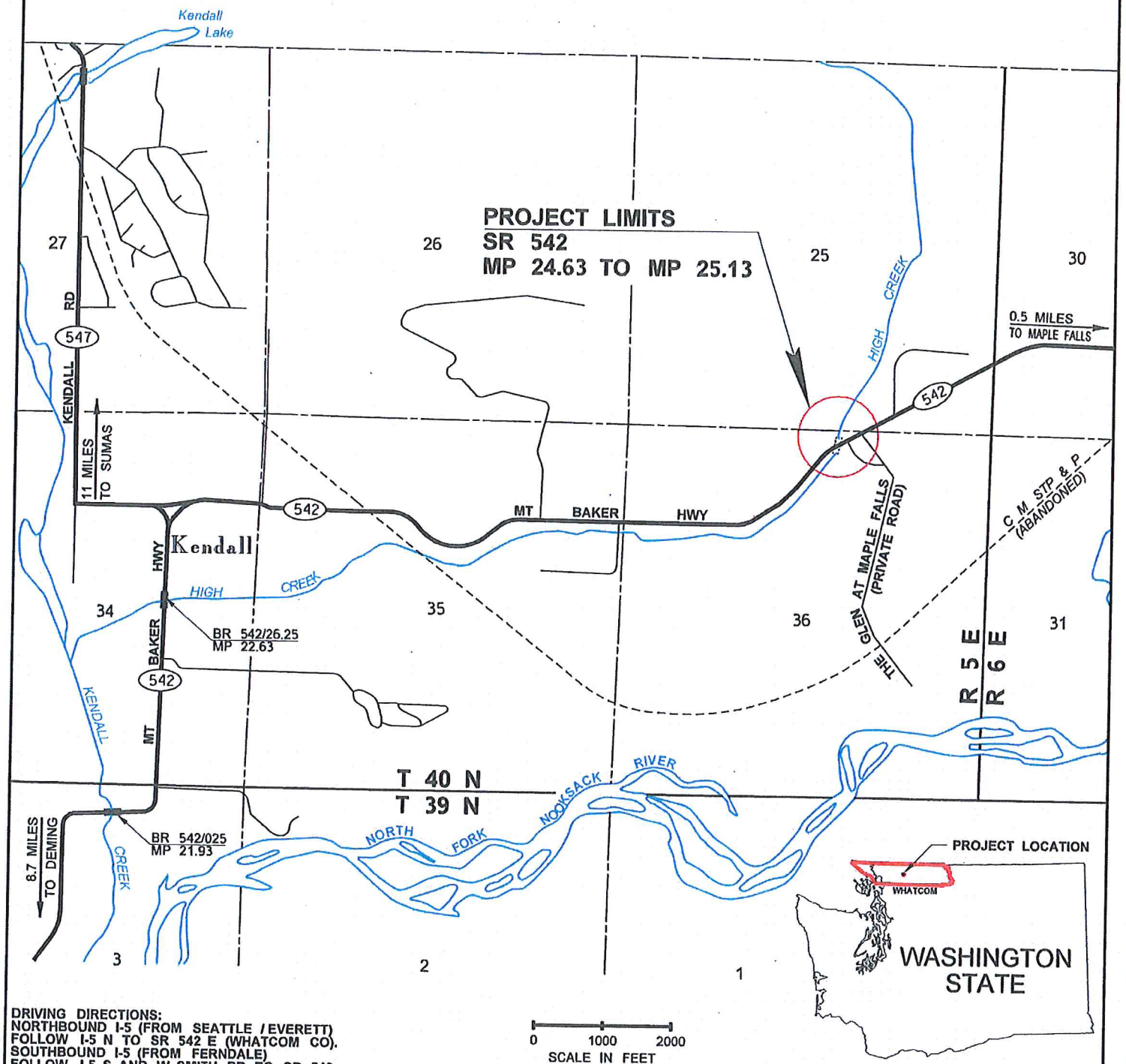
T. 40N. R. 5E W.M.

SEC. 25 & 36

LAT. 48.92033° N

LONG. -122.09705° W

WRIA 01



DRIVING DIRECTIONS:
 NORTHBOUND I-5 (FROM SEATTLE / EVERETT)
 FOLLOW I-5 N TO SR 542 E (WHATCOM CO).
 SOUTHBOUND I-5 (FROM FERDALE)
 FOLLOW I-5 S AND W. SMITH RD TO SR 542.

PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE

PURPOSE: IMPROVE FISH PASSAGE

PROPOSED: REPLACE 6' ROUND CULVERT WITH 26' BOX CULVERT

LOCATION: SR 542 MP 24.63 TO MP 25.13

DATUM: NAD 83 /11

ADJACENT PROPERTY OWNERS: SEE ATTACHED

REFERENCE: NWS-2015-296

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

DATE: DECEMBER 2015



Washington State
Department of Transportation

SHEET: 1 OF: 13

IMPACTS SUMMARY			
SENSITIVE AREA	HIGH CREEK SQ.FT. (ACRES)	WETLAND 1 SQ.FT. (ACRES)	LEGEND
DOE CATEGORY	F	II	
RIFFLE AND POOL COMPLEX PERMANENT IMPACT	5,628 (0.13)		
RIFFLE AND POOL COMPLEX TEMPORARY IMPACT	765 (0.02)		
STREAM BUFFER PERMANENT IMPACT	2,254 (0.05)		
STREAM BUFFER TEMPORARY IMPACT	29,284 (0.67)		
WETLAND BUFFER TEMPORARY IMPACT		8,553 (0.20)	

LEGEND

	EXISTING PAVEMENT EDGE		EXISTING CULVERT
	PROPOSED PAVEMENT EDGE		BOX CULVERT & WING WALLS
- CUT -	CUT		DIRECTION OF FLOW
- FILL -	FILL		BUILDING
	PROPOSED CUT LINE		
	PROPOSED FILL LINE		
	STREAM EDGE		
	STREAM BUFFER		
	WETLAND BUFFER		
	WETLAND BOUNDARY		
	WETLAND SYMBOL		
	ORDINARY HIGH WATER LINE		
	WORK AREA		

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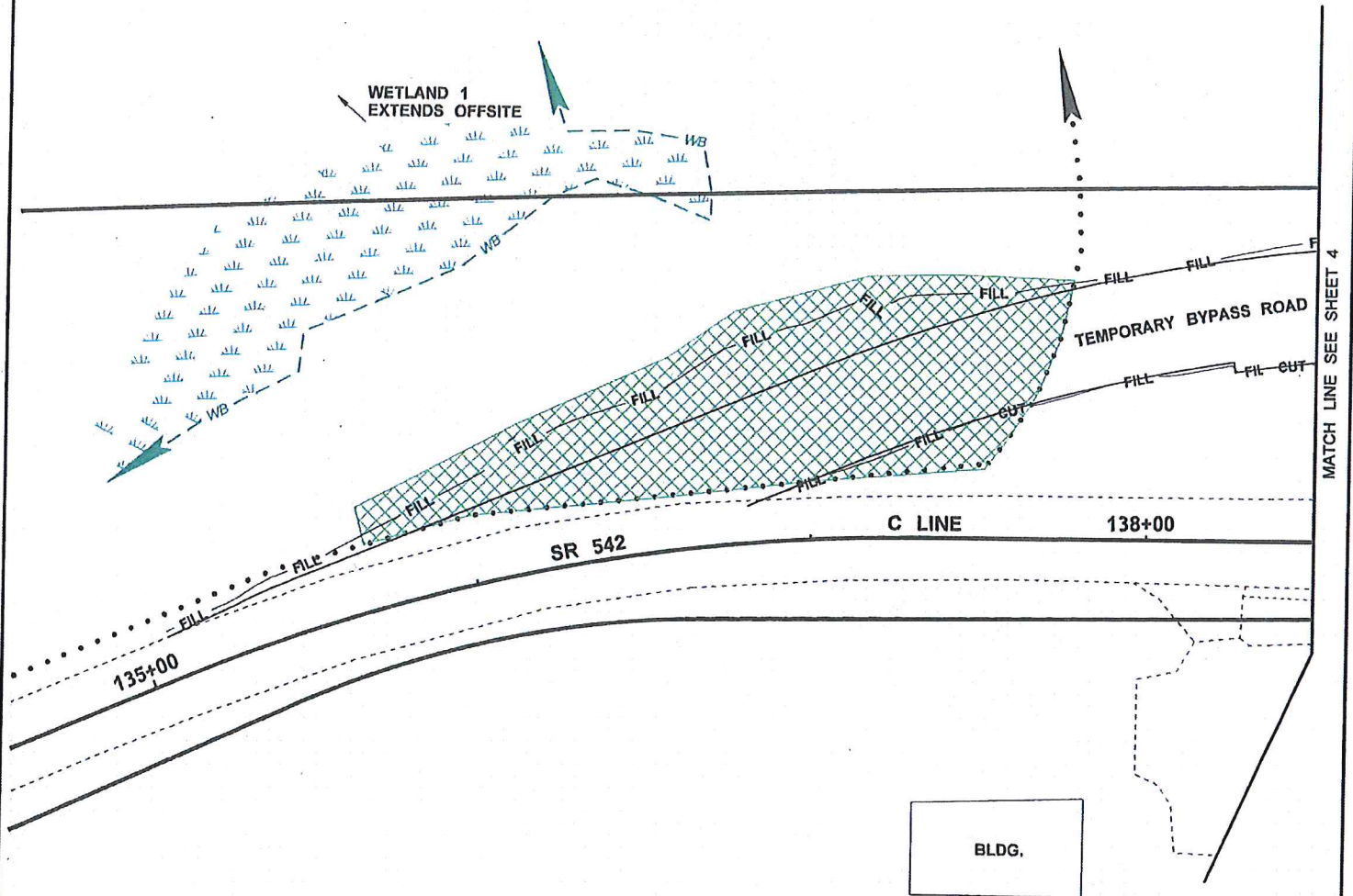
SHEET: 2 OF: 13

IMPACT PLAN



(NAVD) 88

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SCALE IN FEET



NOTE:

1. SEE SHEET 2 FOR IMPACTS SUMMARY AND LEGEND

PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE

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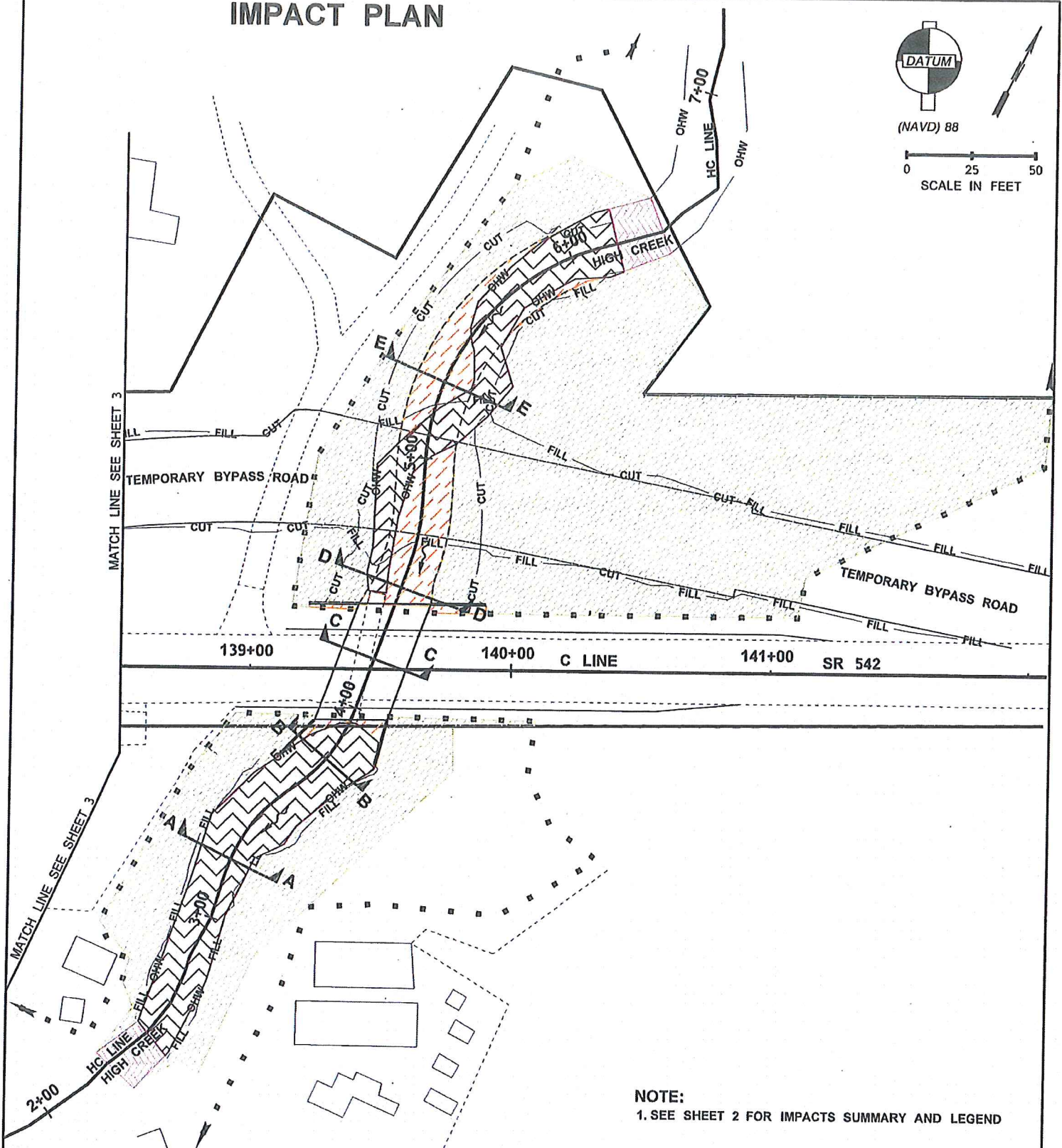
SHEET: 3 OF: 13

IMPACT PLAN



(NAVD) 88

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REFERENCE: NWS-2015-296

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

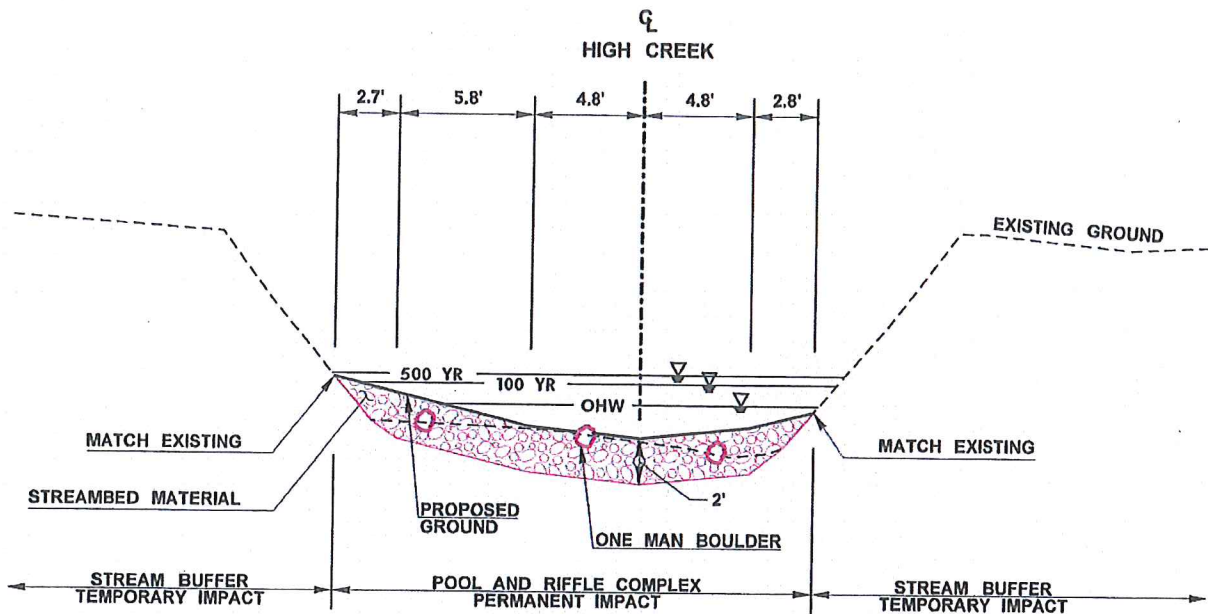
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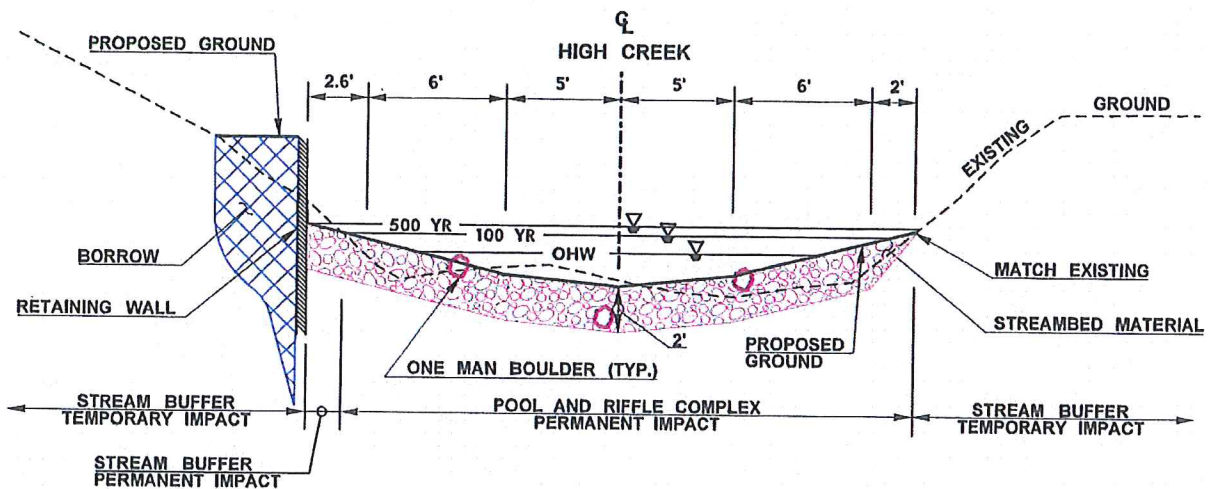
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SHEET: 4 OF: 13

PROPOSED HIGH CREEK (HC LINE) SECTIONS



SECTION A
HIGH CREEK
STA. HC 3+24



SECTION B
HIGH CREEK
STA. HC 3+75



(NAVD) 88

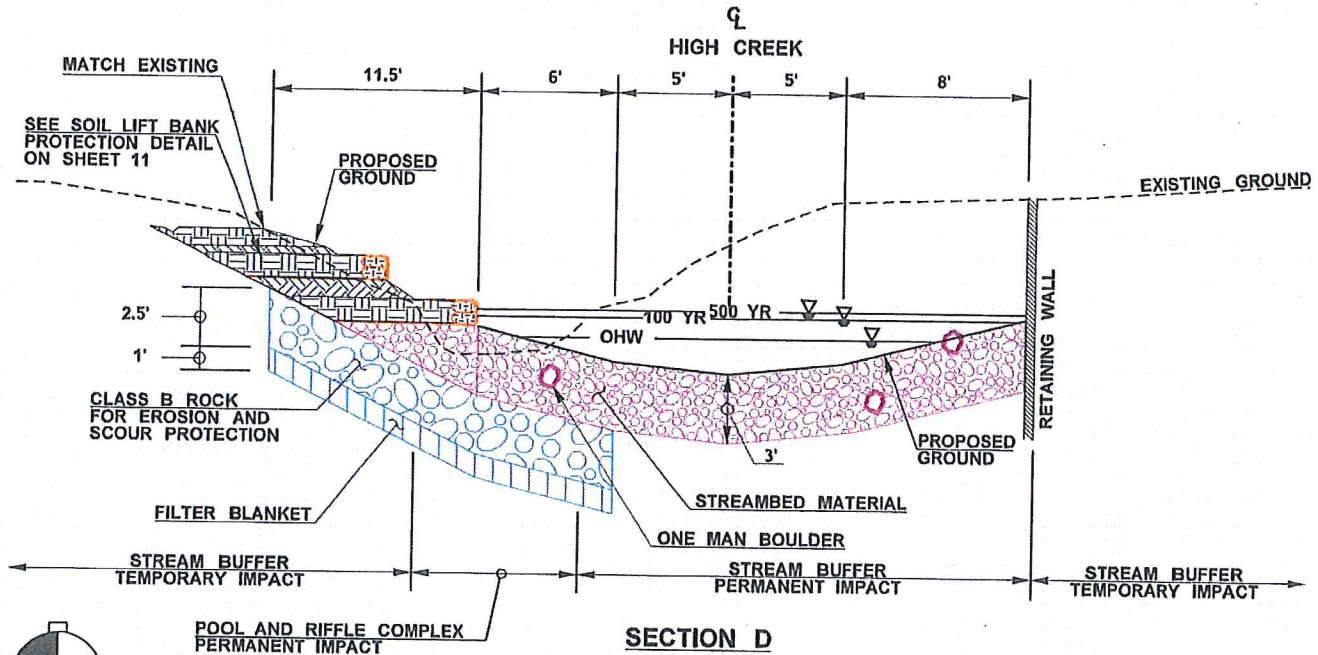
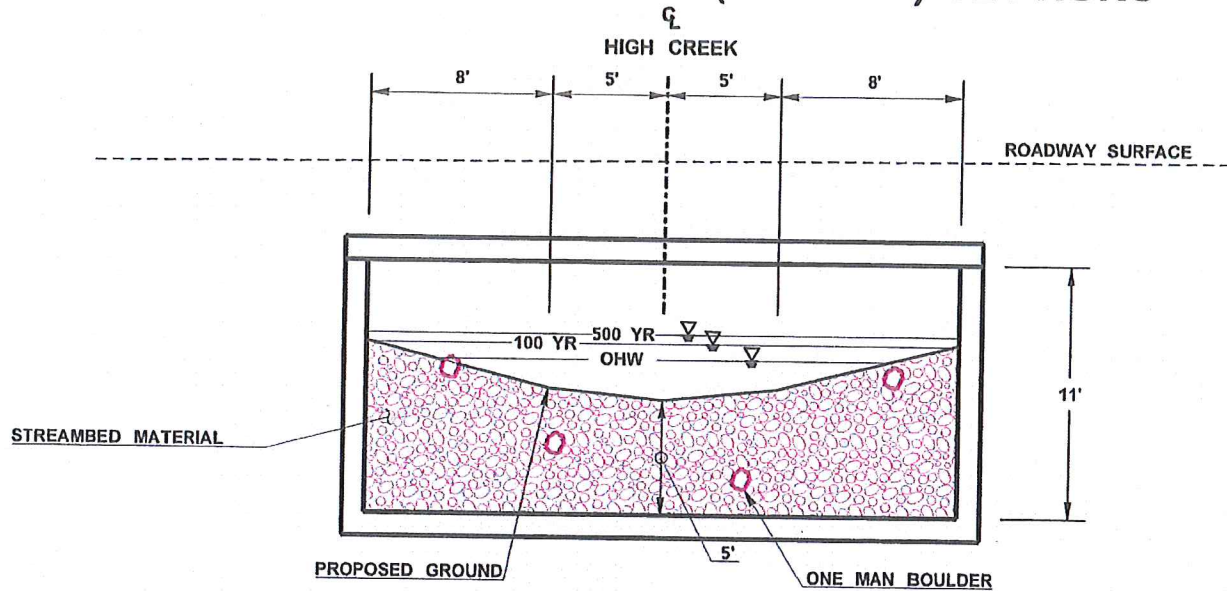
PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE		REFERENCE: NWS-2015-296	
PURPOSE: IMPROVE FISH PASSAGE		APPLICANT: WSDOT	
PROPOSED: REPLACE 6' ROUND CULVERT WITH 26' BOX CULVERT		COUNTY: WHATCOM	
LOCATION: SR 542 MP 24.63 TO MP 25.13		NEAR: KENDALL AND MAPLE FALLS VICINITY	
DATUM: NAD 83 /11		WATER BODY: HIGH CREEK	
ADJACENT PROPERTY OWNERS: SEE ATTACHED		DATE: DECEMBER 2015	



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PROPOSED HIGH CREEK (HC LINE) SECTIONS



(NAVD) 88

PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE

PURPOSE: IMPROVE FISH PASSAGE

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LOCATION: SR 542 MP 24.63 TO MP 25.13

DATUM: NAD 83 /11

ADJACENT PROPERTY OWNERS: SEE ATTACHED

REFERENCE: NWS-2015-296

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

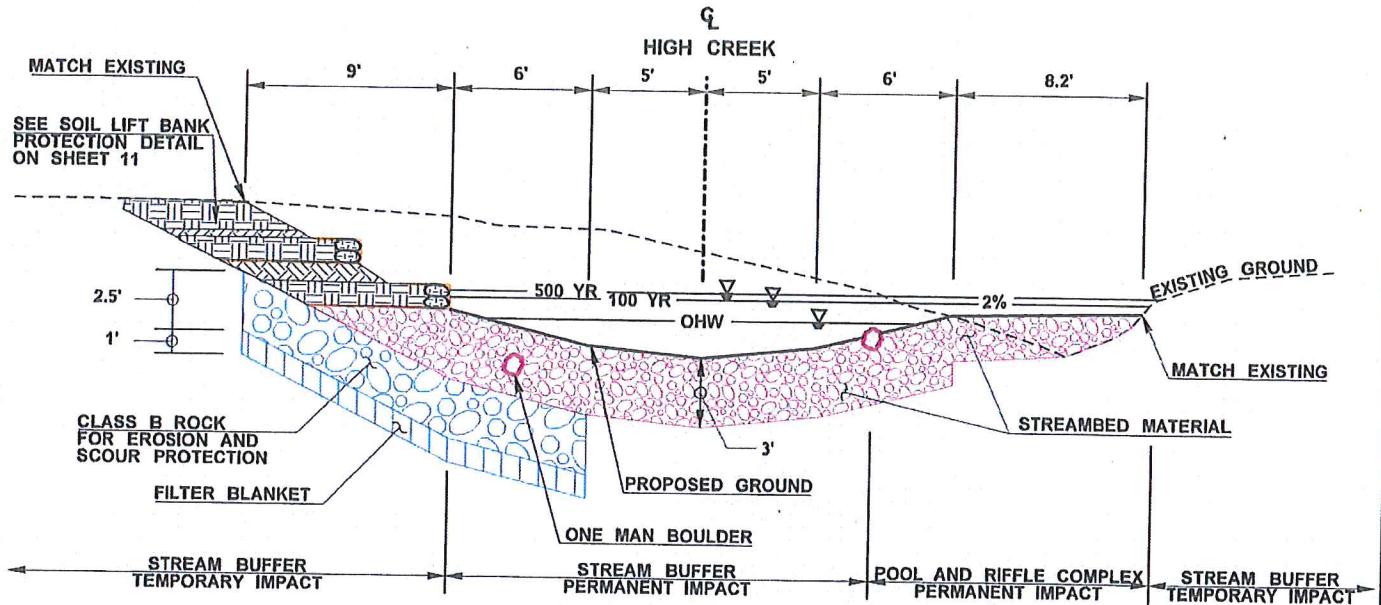
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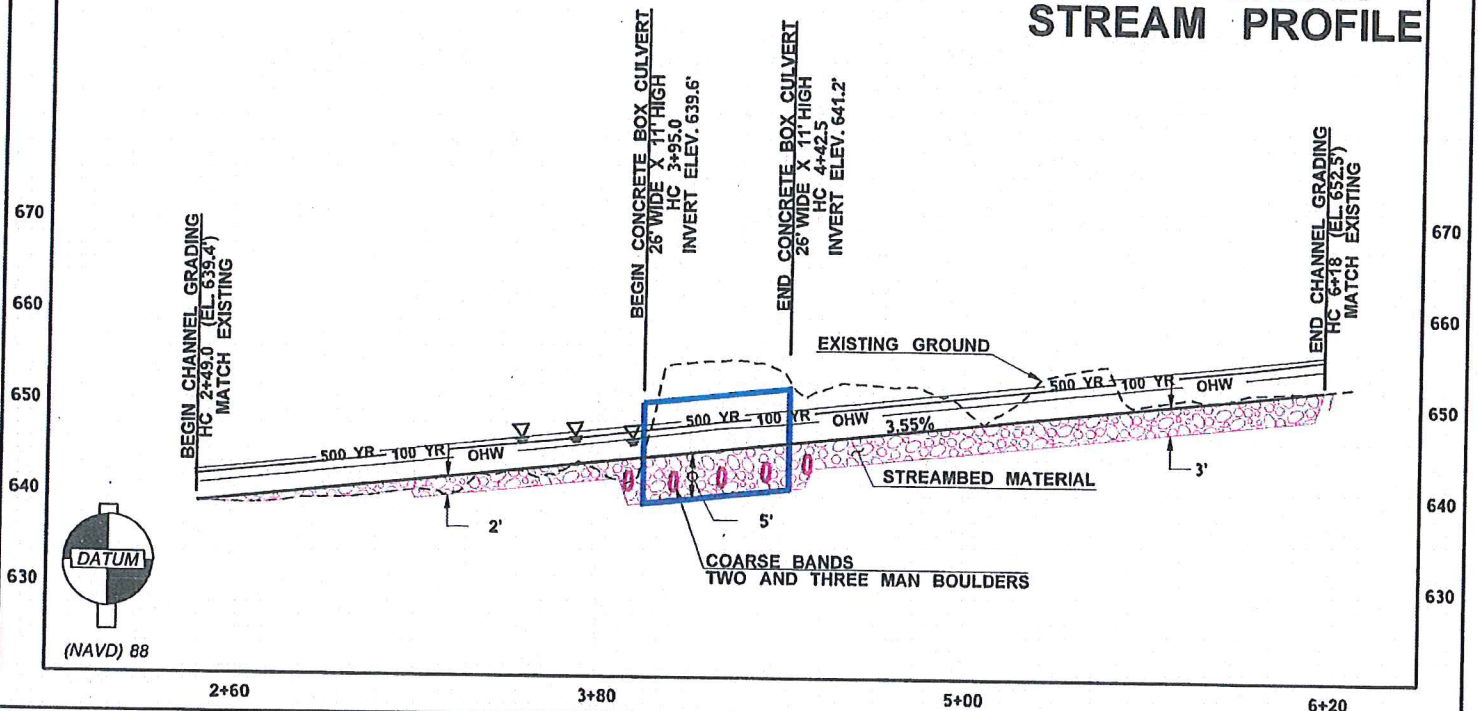
SHEET: 6 OF: 13

PROPOSED HIGH CREEK SECTIONS



SECTION E
HIGH CREEK
STA. HC 5+30

HIGH CREEK STREAM PROFILE



PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE

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REFERENCE: NWS-2015-296

APPLICANT: WSDOT

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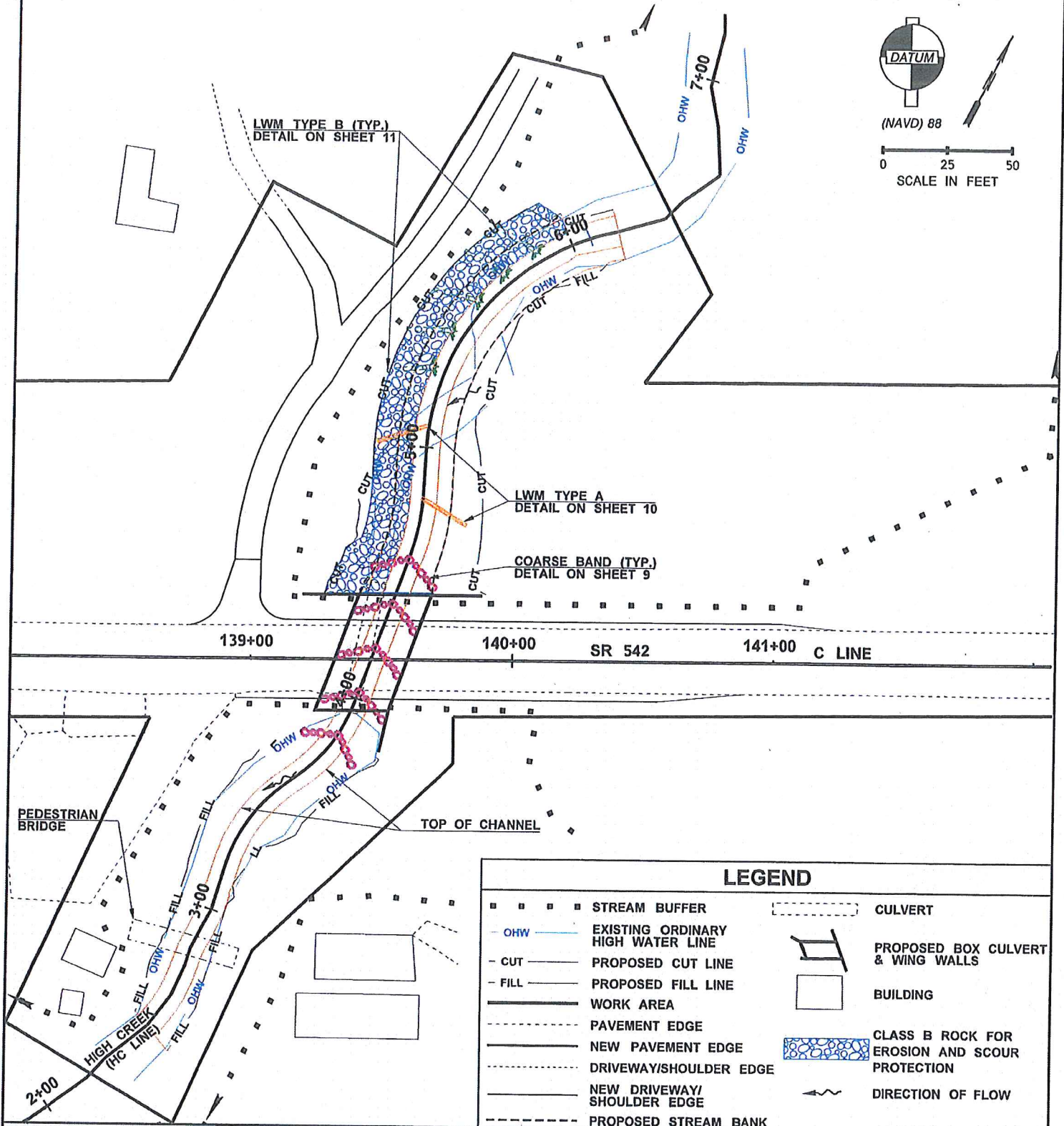
SHEET: 7 OF: 13

SCOUR PROTECTION & LARGE WOODY MATERIAL (LWM) PLAN



(NAVD) 88

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SCALE IN FEET



LEGEND

■ ■ ■ ■	STREAM BUFFER	— — — —	CULVERT
— OHW	EXISTING ORDINARY HIGH WATER LINE		PROPOSED BOX CULVERT & WING WALLS
- CUT	PROPOSED CUT LINE		BUILDING
- FILL	PROPOSED FILL LINE		CLASS B ROCK FOR EROSION AND SCOUR PROTECTION
—	WORK AREA		DIRECTION OF FLOW
—	PAVEMENT EDGE		
—	NEW PAVEMENT EDGE		
—	DRIVEWAY/SHOULDER EDGE		
—	NEW DRIVEWAY/SHOULDER EDGE		
—	PROPOSED STREAM BANK		

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DATUM: NAD 83 /11

ADJACENT PROPERTY OWNERS: SEE ATTACHED

REFERENCE: NWS-2015-296

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

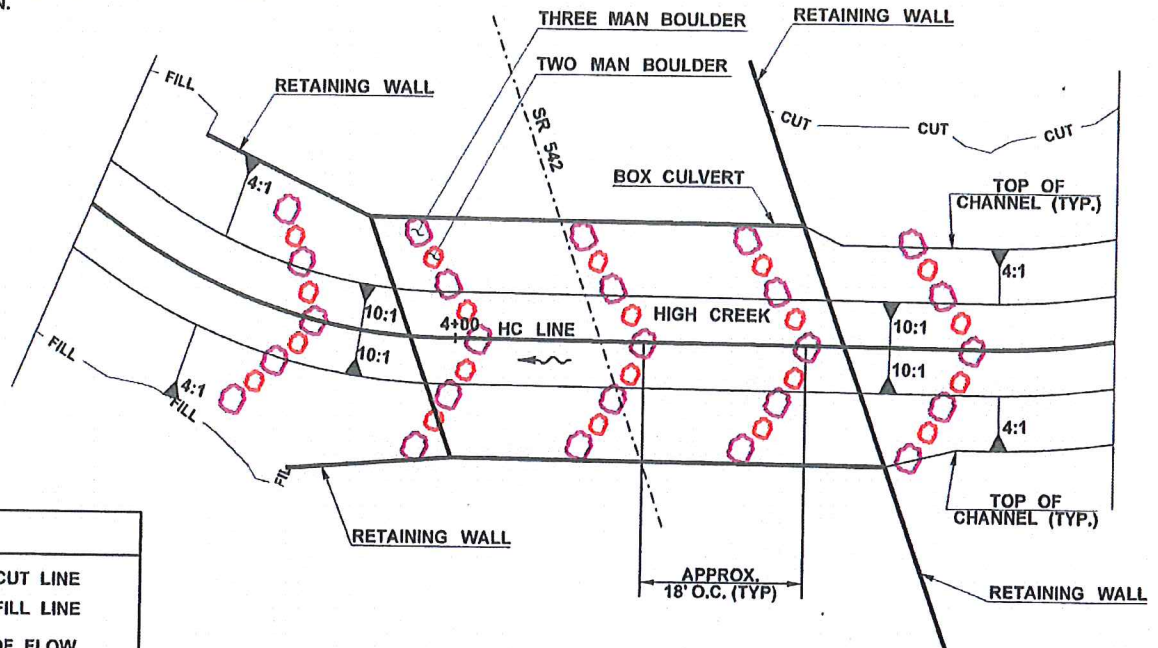
DATE: DECEMBER 2015



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SHEET: 8 OF: 13

1. EXACT LOCATION AND ORIENTATION WILL BE FIELD LOCATED BY THE ENGINEER.
2. COARSE BANDS SHALL CONSIST OF ALTERNATING STREAMBED BOULDER TWO MAN AND STREAMBED BOULDER THREE MAN.



A cross-sectional diagram of a box culvert. The culvert is shown as a rectangular structure with a blue border. Inside, the streambed is filled with pink stippled material labeled "STREAMBED MATERIAL". A dashed vertical line labeled "Q" represents the centerline of the culvert, with a depth of "0.5'". The streambed slopes are indicated as "4:1" on both sides. The culvert is divided into sections by vertical lines, with dimensions "8'", "5'", "5'", and "8'" marked at the top. A "PROPOSED GROUND" line is shown above the streambed. Two boulders are shown: a larger one labeled "THREE MAN BOULDER (TYP.)" and a smaller one labeled "TWO MAN BOULDER (TYP.)". The total height of the culvert is "11'".

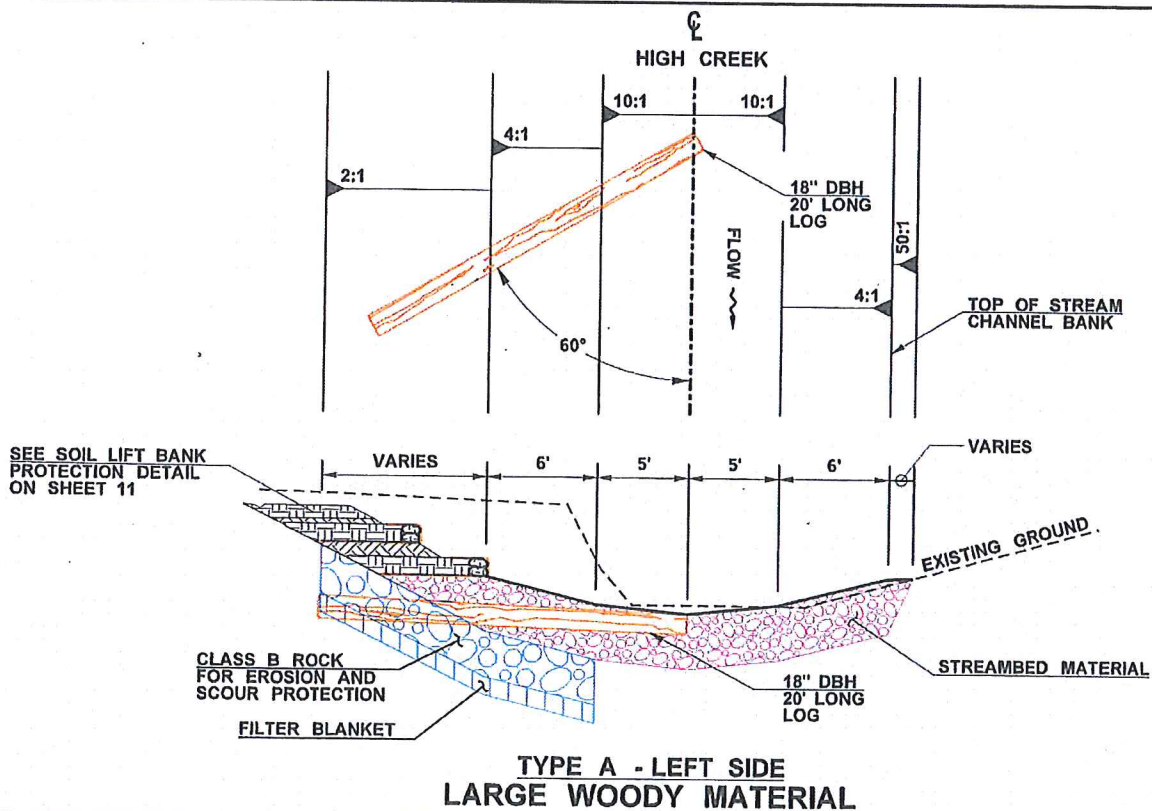
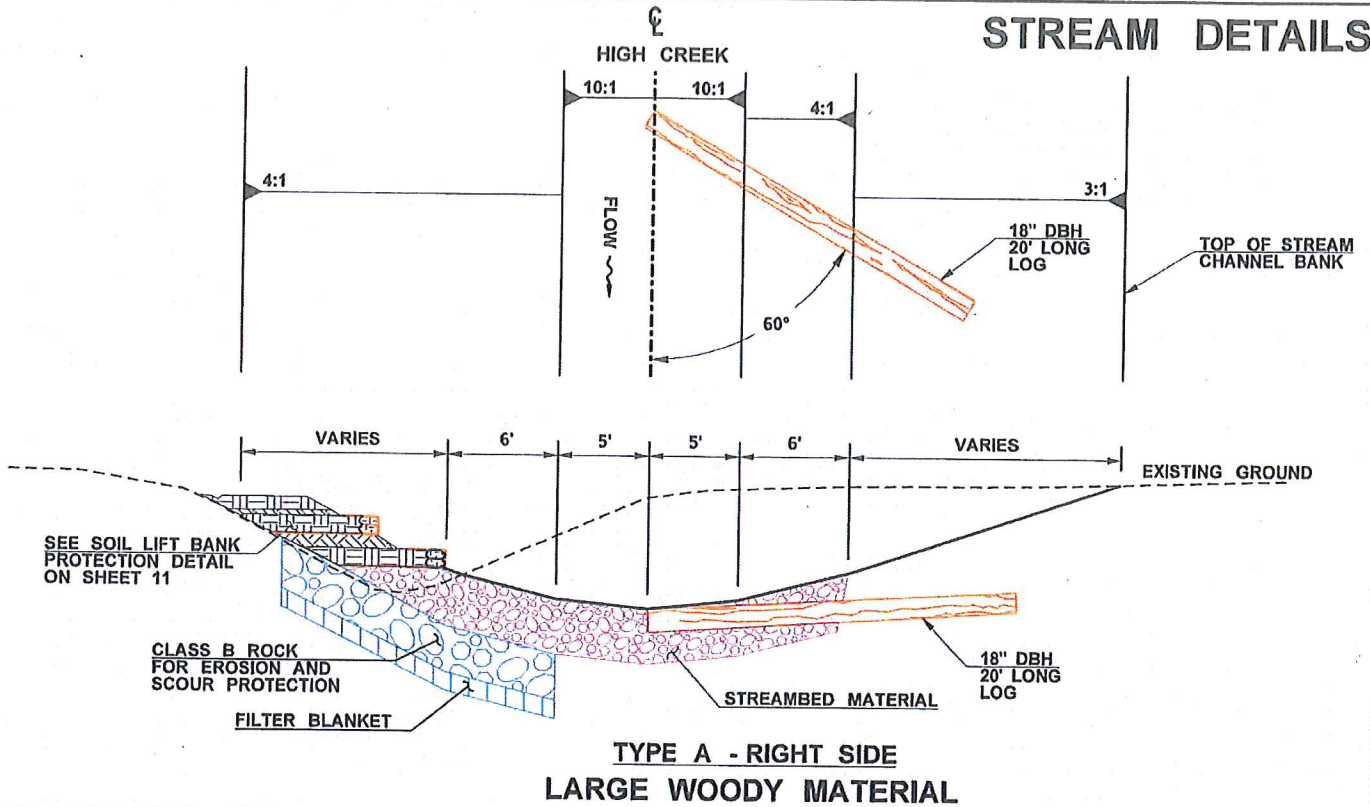
PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE		REFERENCE: NWS-2015-296
PURPOSE: IMPROVE FISH PASSAGE		APPLICANT: WSDOT
PROPOSED: REPLACE 6' ROUND CULVERT WITH 26' BOX CULVERT		COUNTY: WHATCOM
LOCATION: SR 542 MP 24.63 TO MP 25.13		NEAR: KENDALL AND MAPLE FALLS VICINITY
DATUM: NAD 83 /11		WATER BODY: HIGH CREEK
ADJACENT PROPERTY OWNERS: SEE ATTACHED		DATE: DECEMBER 2015



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STREAM DETAILS



PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE

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REFERENCE: NWS-2015-296

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

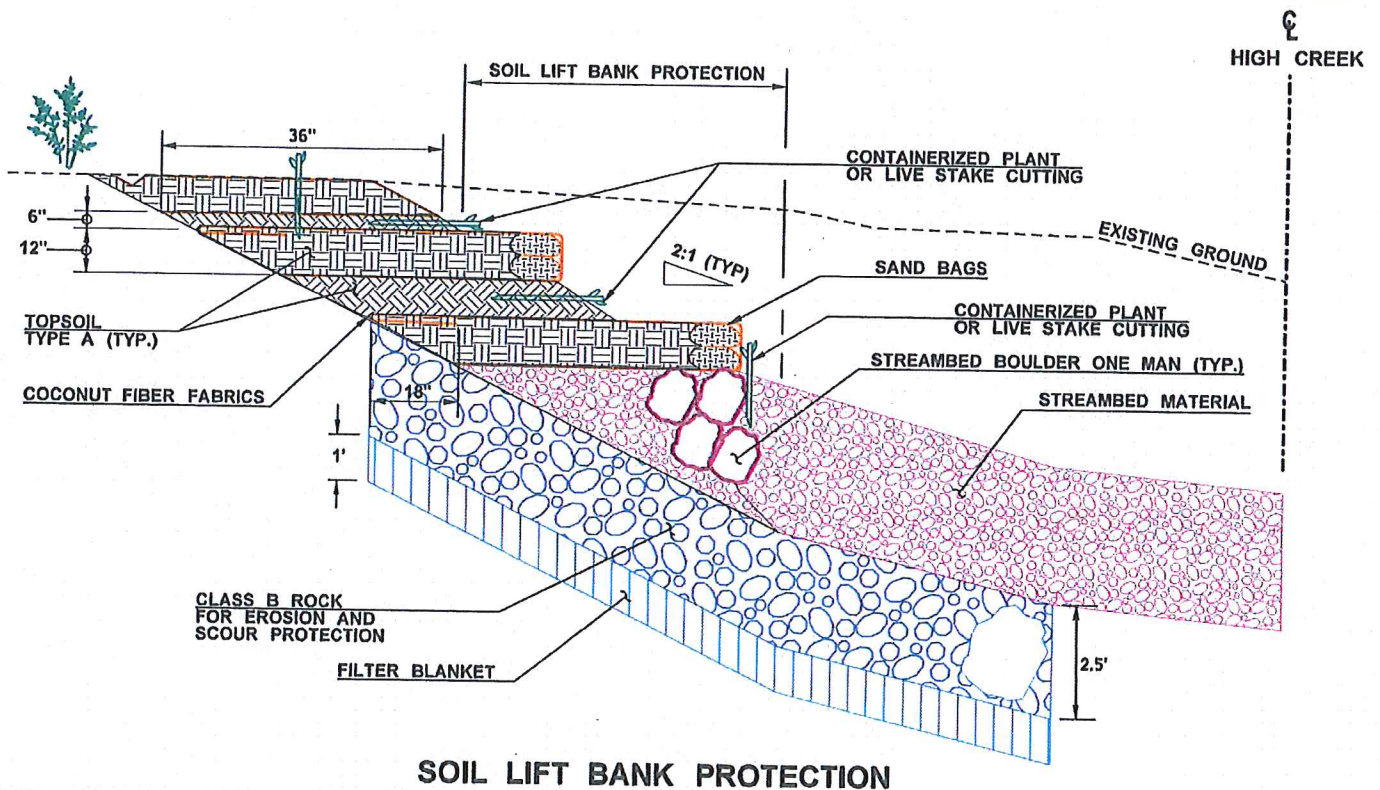
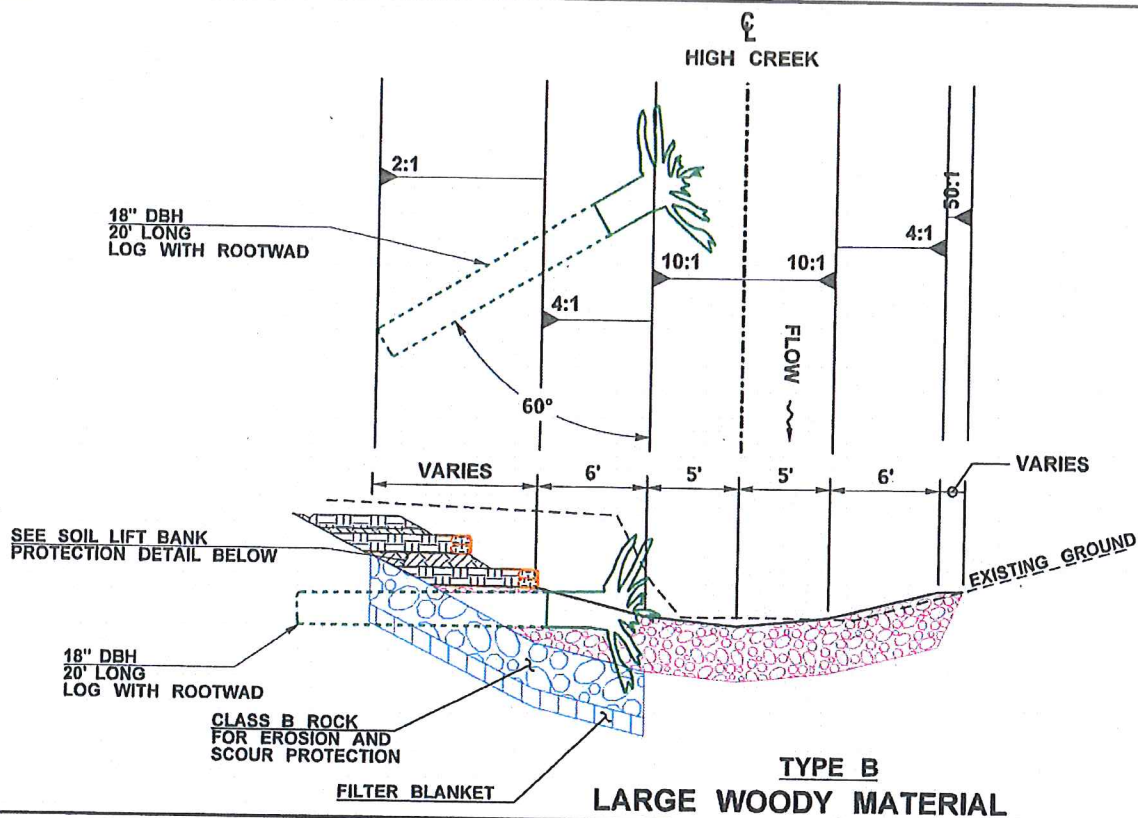
WATER BODY: HIGH CREEK

DATE: DECEMBER 2015



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PROJECT NAME: SR 542 HIGH CREEK - FISH PASSAGE

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APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

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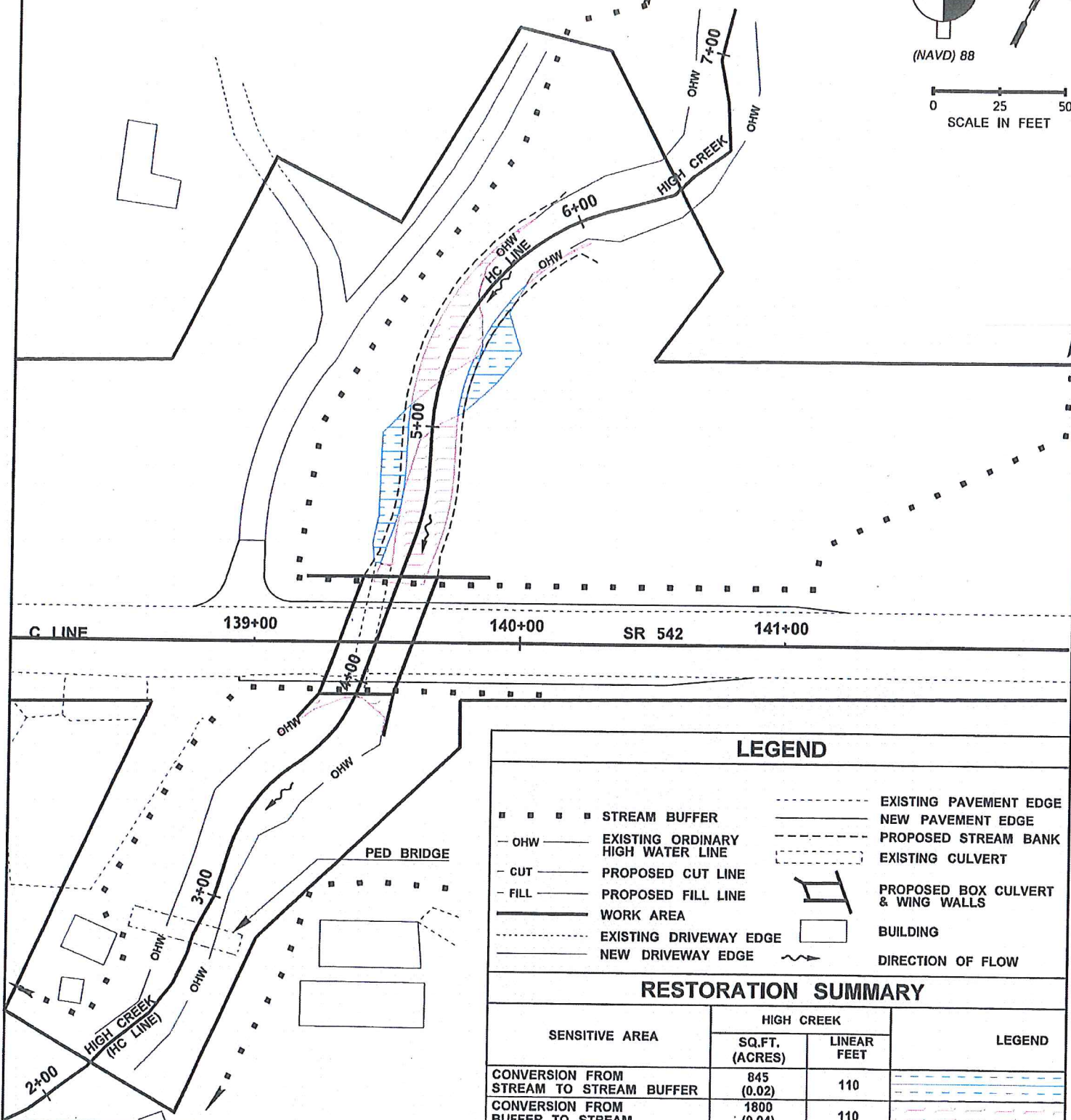
SHEET: 11 OF: 13

RESTORATION PLAN



(NAVD) 88

0 25 50
SCALE IN FEET



LEGEND

■ ■ ■ ■	STREAM BUFFER	---	EXISTING PAVEMENT EDGE
— OHW —	EXISTING ORDINARY HIGH WATER LINE	---	NEW PAVEMENT EDGE
- CUT -	PROPOSED CUT LINE	---	PROPOSED STREAM BANK
- FILL -	PROPOSED FILL LINE	---	EXISTING CULVERT
---	WORK AREA	---	PROPOSED BOX CULVERT & WING WALLS
---	EXISTING DRIVEWAY EDGE	---	BUILDING
---	NEW DRIVEWAY EDGE	---	DIRECTION OF FLOW

RESTORATION SUMMARY

SENSITIVE AREA	HIGH CREEK		LEGEND
	SQ.FT. (ACRES)	LINEAR FEET	
CONVERSION FROM STREAM TO STREAM BUFFER	845 (0.02)	110	---
CONVERSION FROM BUFFER TO STREAM	1800 (0.04)	110	---

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APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

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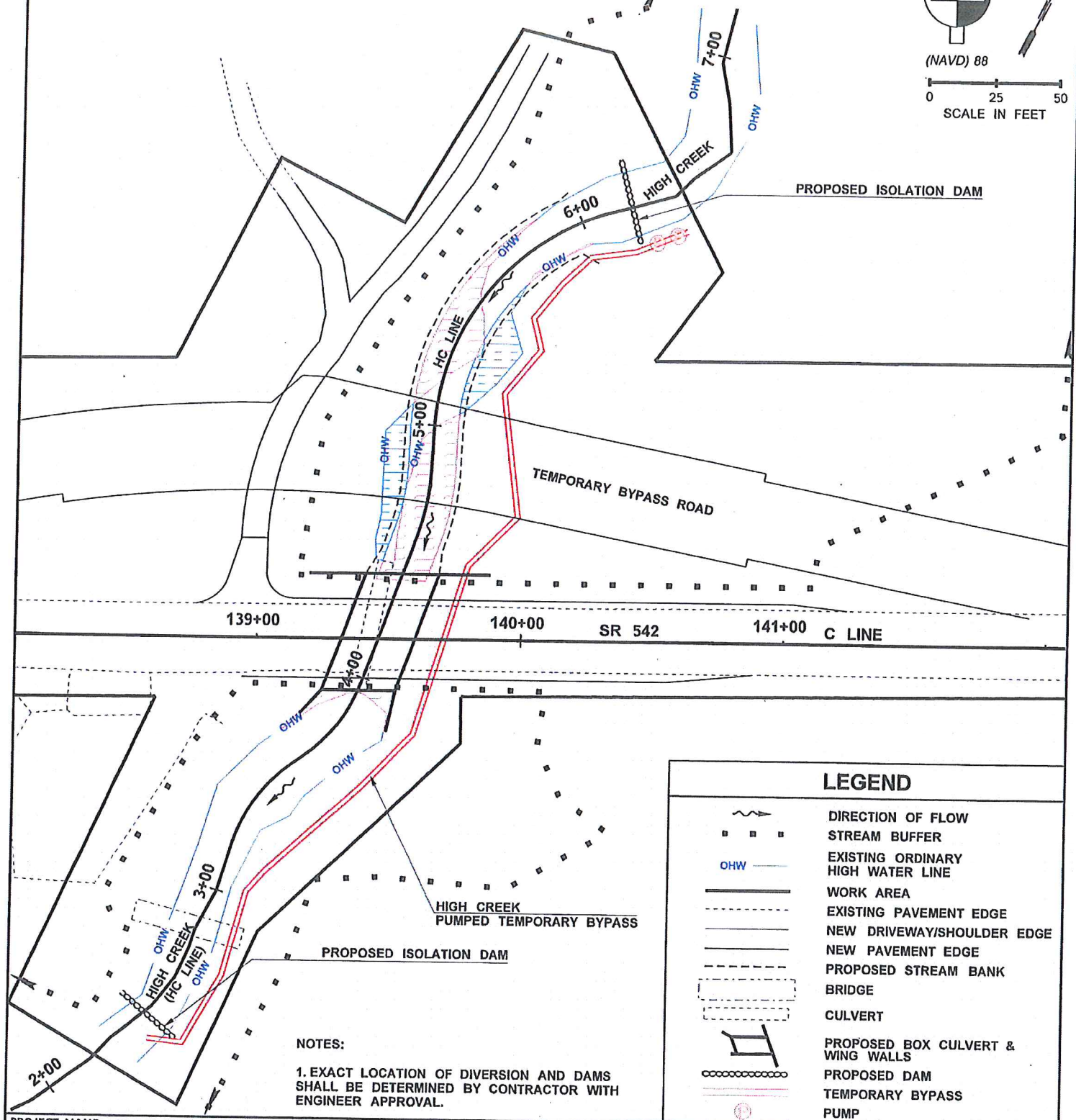
SHEET: 12 OF: 13

CONCEPTUAL STREAM DIVERSION PLAN



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SCALE IN FEET



NOTES:

1. EXACT LOCATION OF DIVERSION AND DAMS SHALL BE DETERMINED BY CONTRACTOR WITH ENGINEER APPROVAL.

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REFERENCE: NWS-2015-296

APPLICANT: WSDOT

COUNTY: WHATCOM

NEAR: KENDALL AND MAPLE FALLS VICINITY

WATER BODY: HIGH CREEK

DATE: DECEMBER 2015

LEGEND

- DIRECTION OF FLOW
- STREAM BUFFER
- EXISTING ORDINARY HIGH WATER LINE
- WORK AREA
- EXISTING PAVEMENT EDGE
- NEW DRIVEWAY/SHOULDER EDGE
- NEW PAVEMENT EDGE
- PROPOSED STREAM BANK
- BRIDGE
- CULVERT
- PROPOSED BOX CULVERT & WING WALLS
- PROPOSED DAM
- TEMPORARY BYPASS
- PUMP



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SHEET: 13 OF: 13

